RHODE ISLAND'S PLAN TO ELIMINATE CHILDHOOD LEAD POISONING BY 2010

Healthy Homes
Healthy Children

SUBMITTED BY THE RHODE ISLAND DEPARTMENT OF HEALTH

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I. INTRODUCTION

Childhood lead poisoning has been the most pervasive environmental health problem facing Rhode Island's children for many decades. Fortunately, childhood lead poisoning is also one of the most preventable pediatric health problems today. Historically, efforts to combat lead poisoning were limited to *secondary* prevention: mandates for screening all children under the age of six for lead, and provision of case management services (medical and social follow-up, environmental inspections) for children with elevated blood lead levels. With the great achievements in secondary prevention efforts, Rhode Island has recently focused its tactics on the *primary* prevention of lead poisoning: protection of children from sources of lead *before* they are poisoned, by concentrating on innovative methods for improved housing, lead education, and access to resources for Rhode Island families. While great strides have been made in reducing the prevalence of lead poisoning in Rhode Island, achieving true elimination through primary prevention will require extensive effort, community partnerships, creativity, and support from leading agencies in the country.

As the prevalence of elevated blood lead levels began to decrease and penetration of lead screening reached 60-70% in the early 90's, Rhode Island began to invest resources in environmental hazard reduction in homes of severely lead poisoned children and in child care settings. EPA funds were made available to the state in order to augment state and federal funds for these efforts, but the amount of money needed to mount a primary prevention strategy was several orders of magnitude removed from the reality.

Recognizing that over 300,000 housing units in Rhode Island would need treatment for successful primary prevention, advocates, legislators and the state agencies responsible for health, environment, law enforcement and housing worked on a set of standards to make the feasibility of such an effort more practicable. In the 2002 legislative session, the Lead Hazard Mitigation Act was enacted and signed by Governor Lincoln Almond, creating the regulatory environment that would enable the primary prevention of childhood lead poisoning. At last, the elimination of lead poisoning in RI children was becoming a viable proposition.

Following the two-year legislative effort for passage of the law, the Department of Health's Childhood Lead Poisoning Prevention Program collected ideas from nationally renowned experts and community partners, examined present resources and compiled a set of action steps that would be necessary to achieve "elimination" as defined in Rhode Island. The main objectives listed at the end of this document form the basis of the elimination planning that is now required for continuing support from the Centers for Disease Control and Prevention (CDC). The strategies and objectives outlined in this document are the result of collaborative sessions and multiple reviews by the RI Department of Health Lead Management Team, the Rhode Island Lead Advisory Committee, and other community organizations and partners.

II. STATEMENT OF NEED

Childhood lead poisoning continues to be a pervasive environmental health problem in Rhode Island. The Rhode Island Childhood Lead Poisoning Prevention Program (RI CLPPP) of the Rhode Island Department of Health is the primary agency responsible for developing, implementing, and coordinating strategies to decrease the incidence of lead poisoning in Rhode Island. The Department is responsible for defining lead poisoning, using data to formulate lead policy, issuing recommendations for screening children under the age of six, conducting outreach to educate the public about the dangers of lead poisoning, and ensuring that significantly lead poisoned children receive adequate services, including environmental home inspections. The efforts of RI CLPPP in conjunction with its community partners has resulted in a decline in lead poisoning incidence rates from 18.8% in 1994 to 3.7% in 2003. However, over 1,000 new children continue to be lead poisoned every year.

Lead poisoning in Rhode Island remains concentrated in the urban communities of Central Falls, Newport, Pawtucket, Providence, West Warwick, and Woonsocket. In 2003, the incidence rate in these six core cities was 5.6%, compared to an average of 2.2% in the other cities and towns throughout the state. The increased incidence in these core cities may be due, in part, to the shortage of safe, affordable housing units in these communities, combined with a lack of enforcement of housing codes. In addition, an increasing number of immigrant families, perhaps unaware of the dangers of lead, are resettling in the older dwellings of urban areas with deteriorating lead-based paint making children in these families particularly vulnerable to lead exposure. Given the irreversible health effects that may result from exposure to small doses of lead, it is crucial that Rhode Island eliminate lead poisoning.

The old housing stock in Rhode Island directly contributes to the lead poisoning problem in the state. Rhode Island has approximately 439,837 housing units, 300,000 of which were built before 1978 and are believed to have lead-based paint. Of the housing units built before 1978, approximately 30,000 are considered high risk and in urgent need of lead hazard reduction. The remaining 270,000 housing units built before 1978 can be made lead safe through mitigation efforts and good maintenance practices (SOURCE: Rhode Island Housing Resources Commission Comprehensive Strategic Plan: Lead Hazard Mitigation Act of 2002, A Roadmap for Implementation; May 20, 2003). The concentration of older housing falls predominantly in low-income urban neighborhoods, where paint is often allowed to deteriorate without any efforts to remedy the unit. Many of these deteriorated, substandard housing units are rental properties in which Rhode Island families are often forced to live due to the limited housing options available to them.

Rhode Island faces a critical shortage of affordable housing. The state ranks third in the nation amongst the least affordable places to live. An individual making minimum wage could afford the fair market rent for a two-bedroom apartment only by working 85 hours/week. As a result, more than 23,000 families in the Providence metro area have "worst case" housing needs. That is, these families make less than half the median income, and either spend more than 50% of their earnings on rent, or live in severely substandard housing. More than 59,000 families who rent in Rhode Island pay more than 30% of their income for housing.

In terms of access, only 2% of all the housing units in Rhode Island are available for rent. This housing shortage has dramatic, measurable impacts on families. Greater numbers of families are turning to shelters, and waiting lists for public housing continue to grow. In FY2000, shelters in Rhode Island served a total of 4,466 people. The number of children staying at these shelters increased to 1,321- 42% more than in 1998. An increasing number of female heads of families cite housing costs and eviction as reasons for remaining at shelters. In addition, finding permanent housing is becoming increasingly difficult for families in shelters. The 26 Rhode Island public housing programs have waiting lists of over 12,000 families. In Providence alone, 900 families are waiting for a public housing unit while 3,028 families are on waiting lists for Section 8 assistance. Another 2,518 families are not included in these statistics because they filed pre-application forms when waiting lists were closed.

The housing crisis is a barrier to the primary prevention of lead poisoning, as well as a major threat to the health and development of young children. One aspect of primary prevention is to educate parents about making informed housing choices. Current federal regulations require landlords to disclose known lead hazards and provide prospective tenants with a booklet on lead poisoning. However, these regulations are most effective when tenants have viable housing options. Due to the housing market facing them, Rhode Island families are forced to rent one of the state's 17,000 substandard units. Anecdotally, it is known that some landlords may be charging $20 to prospective tenants to tour a vacant apartment. Market conditions provide little financial incentive for landlords to provide lead-safe housing, and thus force families to expose their children to potential hazards.

With all the facts presented above, Rhode Island shows clear evidence of need for a comprehensive approach to eliminate lead poisoning in the state. The support of multiple entities and a vigorous commitment of resources are needed to achieve this goal.

III. LEAD POISONING IN RHODE ISLAND

SECONDARY PREVENTION.

A. Screening

In Rhode Island, efforts to screen children for lead poisoning have been continuous, innovative, and have capitalized on valuable partnerships. As a result of these efforts, Rhode Island has achieved recognition as the state with the highest screening rate in the nation.

In 1985, CDC recommended that all states implement a "universal" screening program in order to enroll the maximum number of children from high-risk populations. In the early eighties, it was the RI Department of Health's Division of Disease Control that conducted the majority of lead screening, along with six community health centers from the Providence area, the Visiting Nurse Agencies, private physicians, WIC agencies and other social service agencies. At the time, medical insurance coverage was not accessible to a significant proportion of the population at risk; therefore RI CLPPP began to offer lead screening in high-risk neighborhoods through a door-to-door program. Every summer, students, interns or other trained individuals went door-to-door providing lead screenings for unscreened children. In this way, data began to be collected and used to document the magnitude of the problem.

According to available data, 6,077 children were tested for lead poisoning in 1977. A decade later, in 1987, the number of children screened increased by more than 100% to 17,455, and by 1997 it doubled again to reach 33,973 children (see the table below). While screening has reached a larger number of RI children each year, the population has only increased slightly, from an estimated 55,309 children under the age of six in 1977 to 62,594 in 2002. Furthermore, while the program has screened more children every year, the number of children meeting the criteria for intervention has remained steady- in the 400s each year- suggesting a substantial decrease in prevalence over time.

Year	Screened	Poisoned*	Population
1977	6,077	456	55,309
1987	17,455	419	65,000
1997	33,973	408	63,122
2002	34,927	282**	62,594

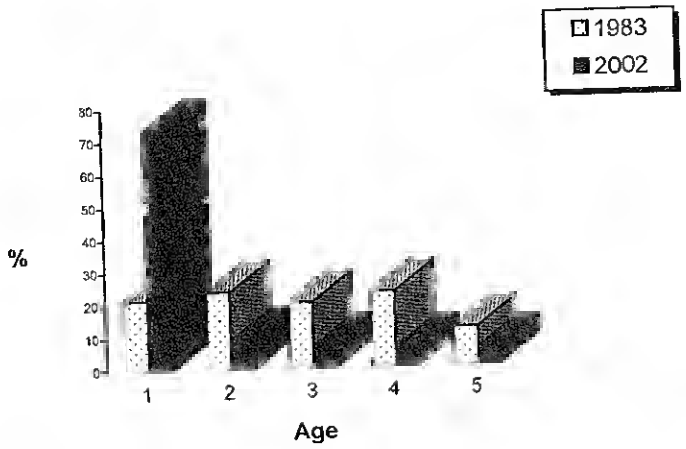
*Children with BLL of 25 μg/dL or more

** Significantly lead poisoned children, defined as one confirmed blood lead test >=20μg/dL or two tests >=15 μg/dL at least 90 days apart but not to exceed 365 days apart.

The most critical change came in 1992 with the passage of the Lead Poisoning Prevention Act. The Act, which came into effect in January 1993, initiated the requirement that every child under six years of age be tested for lead at least once annually- a requirement that remains in place today. Since the early nineties, RI CLPPP has continuously worked with the pediatric community to encourage, enhance and monitor lead screening in young children.

Over time, lead screening in RI has systematically reached more children at a younger age. In 1983, the program screened nearly the same proportion of children ages 1, 2, 3, 4, and 5. In

comparison, in 2002, 73.4% of children tested during that year were 1 year of age, while the remaining 26.6% of the tests were equally distributed among children who were 2 to 5 years of age. This new distribution reveals that children are being identified with elevated lead levels earlier in their development, and thus represents a significant improvement in screening efforts.



Access to health insurance also played an important role in lead screening. In 1994, RI's Medicaid program, Rite Care, was implemented, facilitating access to insurance for a greater number of low-income children and families. According to data from the 1998 door-to-door summer screening efforts, approximately 99% of the children tested already had access to health insurance and had a primary care physician. In light of this documented improvement, summer screening efforts were discontinued in 1999.

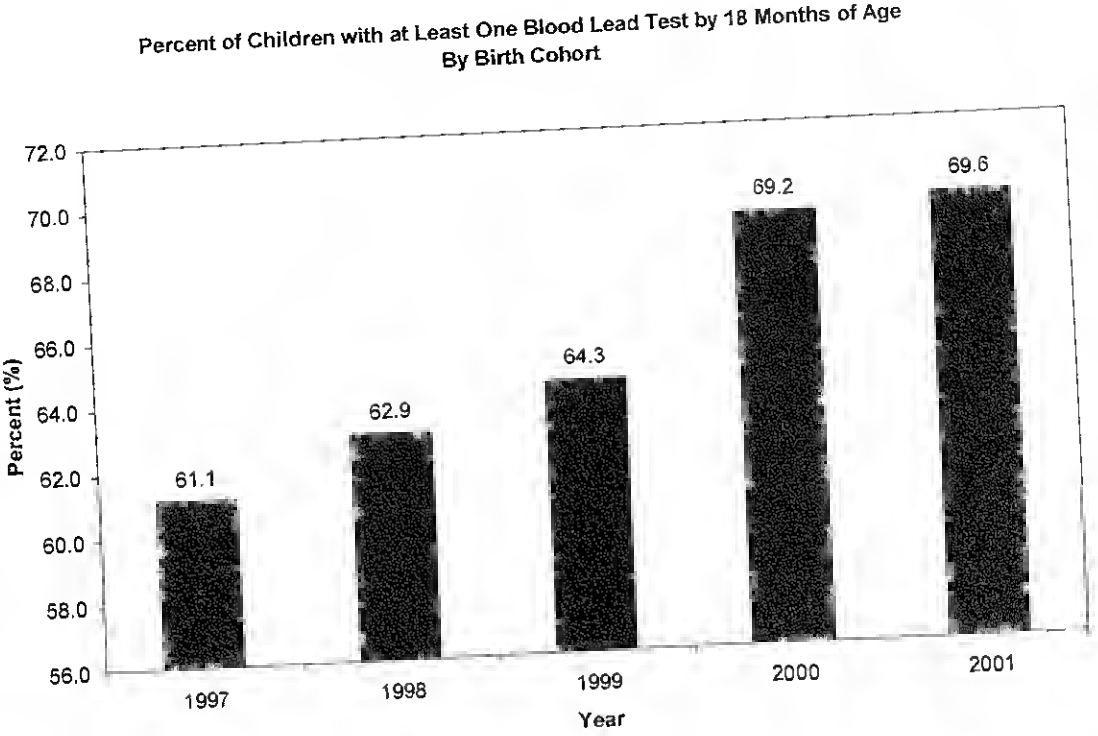
In 1997, KIDSNET- the state's child integrated information system - was launched in Rhode Island, and began to collect information on children born since 1/1/1997. Records of lead screening were, and continue to be, included in this system. With KIDSNET, RI CLPPP had the opportunity for the first time to identify children who were born in the state and did not have evidence of a lead test. Beginning in June 1998, RI CLPPP began to outreach to parents of 18-month-old unscreened children with a letter encouraging parents to have their child(ren) tested.

KIDSNET set an important milestone in screening. Since 1998, RI CLPPP has utilized KIDSNET data to initiate Quality Improvement site visits to the pediatric sites linked to KIDSNET, in order to identify unscreened children 19-35 months old, calculate the screening rate in each site and work with providers to conduct follow up on the unscreened population. To date, 52 practices have received site visits and 11 of them have been found with screening rates of 96% or above, later receiving RI CLPPP's Lead Screening Excellence Award.

The Managed Care Organizations serving the Medicaid population in RI have also worked with RI CLPPP since November 2001 in an effort to match data in the Lead Elimination Surveillance System (LESS) database and prepare verified lists of 23-25 month-old unscreened children. These lists are then sent to the primary care providers who are asked to follow up. To date, 34-month birth cohorts have been matched and lists of unscreened children sent to their pediatricians' sites (see "Improved Childhood Blood Lead Screening in Rhode Island," an article published by the US Department of Health and Human Services, in Appendix #1.) Overall, the screening rate identified at 23-25 months of age has been identified as 82%. Six months after the initial effort, the data is

matched again, and these results indicate that the screening rate at 30-32 months of age has increased to 88.4%.

RI CLPPP set the performance measure for screening as the proportion of children screened at least once by 18 months of age. Using data from KIDSNET, it was found that 69.6% of the children born in year 2001 have been tested at least once by 18 months of age, compared to a 61.1% of those born in 1997.



B. Case Management

Over the years, RI CLPPP has made substantial improvements in its case management services for significantly lead poisoned children. In the early 1990s, following CDC's recommendations, "significantly lead poisoned" was defined as a confirmed lead test of greater than or equal to 25 µg/dL in the state's regulations. This level initiated case management and environmental intervention. In 1997, this threshold was decreased to a lead level of greater than or equal to 20 µg/dL, and modified again in June 2001 to include persistent lead levels of 15-19 µg/dL. The RI CLPPP defines a persistent lead level as two lead tests (venous or fingerstick) that are ≥ 15 ug/dL and at least ninety days apart but no more than 365 days apart (Rhode Island Department of Health Lead Screening and Referral Guidelines, March 2003).

The infrastructure for case management services has changed dramatically over the last decade. In the nineties, because of limited resources and the large number of children meeting the intervention definition, case management was provided in a timely fashion only to severely lead poisoned children (with BLLs at or above 45 µg/dL). In 1994, in an effort to increase case management capacity, RI CLPPP began contracting with home visiting agencies to provide case

management to significantly lead poisoned children. These home visiting agencies provided at least 2 home visits as well as lead education, and referred families to other services as needed. In 1999, RI CLPPP expanded these case management services to "preventive" referrals - or children with lead levels of 15-19 μg/dL. These services were in place until October of 1998, when the first "Lead Center" was certified by the Rhode Island Department of Human Services to provide comprehensive, non-medical case management to significantly lead poisoned children.

Soon after the first lead center was certified, the Health Care Financing Agency (HCFA), known now as CMS, approved the use of Medicaid funding to replace windows in the homes of the Rite Care population. This approval was nationally recognized and Rhode Island set an important precedent in the use of Medicaid funding for the prevention of lead poisoning. It is important to note that these approvals took time and joint efforts to be achieved.

At the end of 2000, there was only one certified Lead Center that was serving the metropolitan area of the state, while other communities were being served by the home visiting agency (Family Outreach Program). In 2002, the Department of Human Services (DHS) re-issued the certification standards to ensure that services were accessible and truly statewide. In late 2002 DHS approved three new Lead Centers. In total, there are now four Lead Centers: Blackstone Valley Community Action Program, Family Service of RI, the HELP Lead Safe Center, and Westbay Community Action Program. All Lead Centers have signed a Memorandum of Understanding (see Appendix #2) with RI CLPPP for purposes of receiving referrals, providing case management to significantly lead poisoned children under the Department of Health's guide, and working jointly on quality improvement efforts.

In light of the many changes in infrastructure that occurred over the last few years, RI CLPPP conducted a formal evaluation of Lead Center case management efforts. This evaluation was performed during 2002, and findings were documented in early 2003 (see Appendix # 3 for the complete evaluation report). The recommendations from the evaluation are being systematically reviewed and implemented, also included in Appendix # 3 with strong participation from the Lead Centers and DHS. Currently the Program is identifying slightly over 200 children with significant lead poisoning every year: 229 in 1999, 200 in 2000, 263 in 2001, 201 in 2002 and 185 in 2003.

C. Environmental Inspections.

Whenever a child is identified as significantly lead poisoned (venous test $\geq$ 20 μg/dL or persistent 15-19 μg/dL), a comprehensive lead inspection is offered to the family. Private lead inspectors perform the inspections and the environmental lead staff reviews their reports for accuracy. The report is provided to the owner of the property, along with a 1st Notice of Violation if lead hazards are identified. Every effort is made to work cooperatively with the owner to achieve lead safe status for the dwelling unit, common areas, and exterior. Non-compliant property owners are referred to the appropriate enforcement agency. The environmental lead staff continues their involvement on all cited properties, including clearance inspections, until the hazards are corrected.

	1999	2000	2001	2002	2003
Inspections Offered	324	262	328	264	184
Child Moved	19	11	30	11	4
No response to letters and calls	32	13	20	15	29
Inspection refused	21	30	53	49	25
Pending inspection	0	0	0	0	11
Inspections Performed	252	208	225	189	115

Between 1999 and 2003, 1,362 inspections have been offered, resulting in 989 inspections performed. To date, 728 of the cases are closed, with the balance in various stages of abatement. The environmental lead program also conducts various primary prevention activities, including ongoing inspections of day care facilities, planning for the inspections of nursery schools, and promoting pro-active inspections of housing units.

	1999	2000	2001	2002	2003
Total Environmental Cases	252	208	225	189	115
Cases Closed	215	171	183	132	27
No lead hazards found during inspection	4	4	8	4	2
No Longer Regulated†	5	1	2	1	0
The parent is the owner to the property so the case is closed after 90 days	35	25	49	46	5
Lead hazard completely abated	132	122	123	81	20
Abatement is complete excluding soil remediation.††	39	19	1	0	0
Other	0	0	0	0	0
Ongoing Cases	37	37	42	57	88
Abatement is complete excluding soil remediation††	2	3	5	0	0
Exterior has been abated, the interior is pending	0	2	0	1	0
Interior has been abated, the exterior is pending	5	5	4	4	2
Enrolled or enrolling in a HUD program, awaiting abatement	2	2	3	3	0
Various Stages of Abatement	28	25	30	49	86

† Properties no longer regulated include illegal apartments that have been dismantled in a premise, the premise is razed and/or the premise has been converted to commercial use.
†† Cases opened after August 1, 2001 remain open until soil remediation is complete.

D. Surveillance

The Lead Poisoning Prevention Act of 1992 also required that all blood lead specimens be sent to the State Laboratory for analysis (unless otherwise approved), and that all blood lead diagnostic test results be reported to the Department of Health. The Lead Program is also responsible for collecting data for surveillance purposes. In the early nineties the program had a manual "Access Machine" with handwritten, perforated cards. In 1993 RI CLPPP moved to STELLAR- its first computerized system that underwent significant internal modifications to meet the early needs of the program. The STELLAR system was primarily used to track blood lead levels of all children tested in the state and to accommodate the environmental inspections and notices of violations that were issued to owners.

In early 1998 the Lead Management Team began long range planning for the development of a new, state-of-the-art surveillance system that could be easily accessible, facilitate report generation, and automate many of the Program's daily manual tasks. In conjunction with the Massachusetts and Connecticut CLPPP programs, RI worked on the development of specifications for a web enabled system that would link blood lead data to environmental data and allow tracking of events and would facilitate report generation. After three years of development, negotiations and testing, the "Lead Elimination Surveillance System" ("LESS") went live in June 2003.

Since 2000, RI CLPPP has had the data management capacity to efficiently manipulate and ensure data quality in the system. Because of this the Program has been able to make data public in the form of annual data books and on our Program website at www.health.ri.gov.

Additionally, in 2002 the Department of Health developed GIS (Geographic Information Systems) capacity, which is now also available to RI CLPPP. With these new surveillance tools and resources, RI CLPPP is well equipped to monitor lead screening and environmental data and therefore to evaluate the progress in eliminating childhood lead poisoning.

PRIMARY PREVENTION.

E. Outreach and Education.

Educating the public about the dangers of lead poisoning has been a consistent priority for the RI CLPPP. It is perhaps the area where the largest accomplishments have been made in the last few years. It wasn't until 1997 that CDC issued "Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials," clearly calling for a statewide plan for community lead education. In Rhode Island, the education in the late 1970s was done at clinic appointments and home visits, or in response to telephone calls. The major outreach effort was the media campaign done every summer to promote door-to-door screening. In the early 1990s, RICLPPP trained several community educators to provide education about lead poisoning in their communities. While this network of educators was successful in spreading the lead message in their own groups, much work remained to expand community education.

Since 1998 RI CLPPP has dedicated tremendous effort to building a strong, comprehensive outreach and education plan that contains different strategies for parents, health care providers, professionals, legislators, and individuals who are doing home renovations on their own. (The

complete Public and Professional Health Education, Health Promotion and Outreach Plan is available at www.health.ri.gov/lead/family/outreachplan.pdf).

The major highlights of the program's outreach/education efforts are as follows:

- Lead Poisoning Prevention Month: celebrated each May since 1999 with a statewide effort to educate the public and the professional RI community about lead;
- Lead Update: a bi-monthly publication that reaches physicians, ob/gyn providers and community partners with news, policy changes and updates;
- Web site: contains a wealth of information and is reviewed and updated continuously, to provide the most current data and helpful information.

Recently, in preparation for implementation of the Lead Hazard Mitigation Law, RI CLPPP developed educational materials and launched a media campaign in partnership with the Governor's Office and the Housing Resources Commission. The purpose of these activities was to increase public awareness about the new law and to inform RI property owners and tenants of their rights and responsibilities under it. This media campaign will continue over the next year, working to enroll low-income property owners into state and city Lead Hazard Reduction Programs.
RI CLPPP continues to develop innovative outreach strategies to reach target audiences, including pregnant women, families, and property owners. In recent months, RI CLPPP has expanded partnerships with the Housing Resources Commission and the Lead Hazard Reduction Programs to develop a collaborative in which outreach and education strategies can be developed as a statewide approach in conjunction with the Lead Hazard Reduction Programs in the state. Other efforts and innovative strategies that RI CLPPP is currently developing are outlined on pages 24-26 of this document.

F. "Keep Your Baby Lead Safe" ("KYBLS") Program.

In the fall of 2002, with additional funding from CDC, RI CLPPP started the innovative "Keep Your Baby Lead Safe," or "KYBLS," Program. As included in Appendix # 4, the goal of the "KYBLS" program is to educate pregnant women about lead hazards through home visits and to connect them with resources to remove lead hazards in their home before the baby is born.

KYBLS partners include the home visitors from the Family Outreach Program, the Department of Energy's Weatherization Office, the Community Action Programs in the state, the Lead Hazard Reduction Programs (recipients of HUD funding), providers of prenatal care and family planning counselors at community health centers.

Pregnant women are enrolled as early in pregnancy as possible, and receive a prenatal home visit, which also includes lead poisoning education. Next, steps are taken to connect the family with lead hazard reduction resources. As expected, this has been a particularly challenging task, as most enrolled women are tenants, and lead hazard reduction actions require the landlord's involvement, which the tenant is often wary of and unwilling to undertake. These difficulties have necessitated programmatic modifications, negotiations with new partners, and a great amount of brainstorming. The program continues to seek innovative ways to reach the ultimate goal of making lead safe housing available to the program's enrollees. With that purpose in mind, and with input from a variety of internal and external partners, the program has decided to once again modify the strategy for KYBLS' recruitment, through emphasis on the enrollment of pregnant women or recent mothers who are also property owners. Since property owners who are also expecting or are recent mothers may be fewer in comparison to the number of tenants, the program recently met

with the Health Care Plans as well as the Lead Hazard Reduction Programs to ask assistance in the referral process and promotion of the KYBLS program in a variety of ways. Both groups, the Lead Hazard Reduction Programs as well as the Health Care plans in Rhode Island agreed to provide assistance in the identification of additional referrals. New activities agreed upon include dissemination of KYBLS information at all the Lead Hazard Reduction Programs during their application process, as well as advertisement for "KYBLS" via articles in newsletters and publications. The RI CLPPP program will also design a "KYBLS" brochure that will be sent to OB/GYN providers in the state.

It is expected that referrals from other partners already working with KYBLS will continue to flow, however, the emphasis will be to enroll property owners. This new strategy may also bring additional challenges given the varied income requirements of individual lead hazard reduction programs, and the overall frustration of property owners towards the lengthy, complicated process of lead hazard reduction.

IV. THE LEAD HAZARD MITIGATION LAW OF 2002

A. Background and Purpose.

The Lead Hazard Mitigation Law, signed by Governor Almond on June 25, 2002, offers a new approach to decreasing the incidence and severity of childhood lead poisoning in Rhode Island. Recently modified in July 2004, the Law comes into effect on July 1st, 2005, and focuses on proactive action to prevent childhood lead poisoning before it occurs. The agency responsible for overseeing implementation of the Law is the Housing Resources Commission.

The Law applies to all pre-1978 rental housing in the state, and establishes reasonable, achievable standards for its maintenance. Achieving the Department of Health's "Lead Safe" standard is widely recognized as being prohibitively expensive for owners, and thus is almost never undertaken voluntarily. While the new "Mitigation Standard" itself is similar to the Lead Safe standard, owners will be able to do the work themselves to achieve it (after proper training), lowering the cost substantially. Justification for the Mitigation Standard is based on long-term research, funded by the U.S. Department of Housing and Urban Development (HUD), showing the long lasting positive impact of low cost "interim" lead hazard reduction. (For a detailed comparison of the Lead Safe and Mitigation Certificates, see Appendix # 5.)

The initial efforts to propose the law arose from a recognized need to change the state's approach to lead in housing, which had for many years only mandated lead hazard reduction reactively- that is, after a child had been lead poisoned. Homeowners were not required to take any proactive measure to prevent lead poisoning by maintaining his or her property. The problem of this reactive approach was confounded by the "innocent owner" provision in the 1991 release of the Lead Poisoning Prevention Law. By this former standard, RI property owners were assumed "innocent"- even if their property was built prior to 1978- until a child residing in their property became lead poisoned and an environmental inspection proved the existence of lead hazards on the property. Then and only then was the property owner mandated to remove lead hazards through a licensed lead contractor.

Many partners collaborated to prepare several drafts of the proposal. Senator Thomas Izzo (D) Cranston, a long-time child welfare and child health supporter and chair of the Rhode Island Senate Health Education and Welfare Committee was a natural candidate to approach. Passionate about the issue, he accepted the challenge and decided to introduce the bill. Initial negotiations were conducted through a commission with broad-based membership including advocates, landlords, HEALTH staff, and professional group leadership for insurance, physicians and other Senate members.

Early on, a major barrier to moving ahead with the bill was the lack of a state agency responsible for housing issues. The Senate therefore designated the role to the Housing Resources Commission (HRC) to specifically address housing issues such as lead and homelessness. The HRC was created in 1999, representing a major step towards moving lead poisoning prevention into the state's housing agenda.

The next year, a revised bill transferred responsibility for its related activities from the Department of Health to the Housing Resources Commission (reducing concerns that the Department of Health

would be seen as the enforcement agency), phased out innocent owner provisions, and established specific public disclosure standards. The bill passed with a sunset provision which brings the policy in front of the General Assembly to assess the progress and success of implementation activities. The Law will take effect on July 1st, 2005 in an effort to provide additional time for property owners to prepare and plan to comply with the law. However, educational efforts to inform property owners, training classes, media efforts and the issuance of Certificates of Conformance are already available and will continue to be provided prior to July 1, 2005 to encourage property owners to obtain their Certificates proactively.

B. Major Highlights of the Law.

The Mitigation Law removes the "innocent owner" clause, which held property owners responsible for fixing lead hazards only after a child was poisoned on their property. Without this clause, property owners who disregard obligations to correct lead hazards and repeatedly allow children to be poisoned are committing a felony as of July 1, 2005. The Law also serves to increase the availability of lead liability insurance and to resolve formerly disjointed insurance practices. If a property owner complies with the law, coverage for damages caused by lead poisoning could automatically be part of the property owner's liability insurance. For compliant property owners, there are no exclusions from coverage, thus virtually eliminating the risk of renting to families with small children.

Families with children under six years old, as well as pregnant women, are deemed under the Law to have the right to live in housing in which lead hazards are, at a minimum, mitigated and also have the right to injunctive relief.

Two reviews by the Auditor General are required by the Law to assess the effectiveness of the Lead Hazard Mitigation program. Any concerns will be reported publicly to the General Assembly and the Governor.

C. Responsibilities of Property Owners

To comply with the Law, owners of pre-1978 rental property must obtain Certificates of Conformance or meet higher standards for all of the rental units they own. To do this, they must attend a three-hour lead hazard awareness course, identify lead hazards on their property, fix the hazards using the safe work practices learned in the course, and get an Independent Clearance Inspection from a certified inspector. Additional requirements include providing tenants with information, responding to tenant complaints, and maintaining the currency of the Certificates of Conformance over time. For information relating to the rights and responsibilities of parties affected by the Law, see http://www.hrc.ri.gov/mitigation.html.

D. Implementation.

1. Technical assistance capacity

Currently, the Housing Resources Commission (HRC) is preparing for the law to come into full effect on July 1st, 2005. Due to the substantial changes in the rights and responsibilities of all parties affected by the law, the HRC is responsible for providing an adequate support system for

these parties to understand and comply with the law. The HRC has established a hotline that property owners and tenants can call with questions. Additionally, the HRC provides educational materials that outline the rights and responsibilities of property owners and tenants. Many training organizations have been certified to offer the 3-hour lead hazard awareness course required by property owners, and dozens of classes are now occurring statewide. As of June 30th, 2004, over 3,000 property owners had already participated in the lead hazard awareness course. In addition, HRC will provide technical assistance for property owners to comply with the law.

2. Education

As required by the Mitigation Law, the Housing Resources Commission and the Department of Health produced culturally and linguistically appropriate materials outlining the rights and responsibilities of parties affected by the Law. Materials were produced for both property owners and tenants. For property owners, there are comprehensive materials that review in detail the steps needed to comply with the law, as well as a resources sheet detailing various training, inspection, and financial services available to them. For tenants, there is a fact sheet on their rights and responsibilities under the Law that details new legal rights and how to issue a complaint to their landlord.

Also as required by the Law, the Housing Resources Commission, Department of Health and the Governor's Office collaborated on a comprehensive media campaign that included television, radio and print media. The purpose of the campaign was to increase general awareness of the new law and connect affected parties to resources to help them come into compliance and/or understand their rights under it.

3. Public Lists.

Under amendments made to the Lead Poisoning Prevention Act by the Mitigation Law, the RI Department of Health's Environmental Lead Program must maintain certain public lists in order to alert the public about rental properties that pose a high risk for lead poisoning. The lists are available at http://lead.health.ri.gov and reflect an increased enforcement effort with the anticipated outcome of achieving more lead safe properties.

The list entitled "Ongoing Violations" contains about 250 owners who have an outstanding 2nd Notice of Violation with the Department of Health. These owners have not corrected lead hazards that were found on their property where a significantly lead poisoned child was living. In addition to owner information, the addresses of the properties with ongoing violations are provided.

"Properties with Multiple Poisonings" is a list of properties that are not lead safe and where 3 or more children have lived, with 2 or more having elevated blood lead levels. Approximately 120 properties are on this list.

The last list is entitled "Highest Risk Premises" and will provide addresses of properties that Department of Health has been declared unsafe for habitation by children under the age of six. Property owners, who meet specific criteria involving at least two children being significantly lead poisoned, will be notified that their premises present a high risk of lead poisoning. They will be required to provide a lead safe certification within a specified time frame, or their property will be added to the lists.

4. Amending Existing Regulations.

The Lead Hazard Mitigation Law of 2002 required that the Housing Resources Commission promulgate regulations outlining requirements for property owners of pre-1978 rental units. The HRC, Department of Health and their partners worked for approximately 6 months in the development of the Lead Hazard Mitigation regulations, which were finally promulgated in March of 2003.

The Law also resulted in some changes to the Department of Health's Rules and Regulations for Lead Poisoning Prevention. The proposed amendments have been drafted and reviewed by the Interagency Coordinating Council, and have also been presented at a public hearing. It is anticipated that revised regulations will be effective in September 2004. The changes are minor; there are some new definitions and some modifications to assure compatibility with HRC's regulations.

5. Performance Audit.

Among the mandates of the law is the requirement that the Auditor General conduct an audit of the agencies involved in the implementation of the Lead Hazard Mitigation Law to assess the extent to which the goals were met and the mandates have been made reality. The law required the first performance audit to be completed by the end of March 2004. Evidencing the clear lack of resources available for implementation of the Mitigation Law, the Office of the Auditor General has temporarily postponed these audits.

V. METHODOLOGY

A. Advisory Committee.

RI CLPPP officially formed the Lead Screening Advisory Committee early in 1998, after CDC issued the "Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials," which asked programs to develop a statewide screening plan with wide community participation and determine, through data analysis, whether the state needed universal or targeted screening. In 1998-99, the primary mission of the Committee was to keep informed of the Program's screening activities and to work on the statewide screening plan. The RI Lead Screening Plan was issued in October 2000. Until that time, lead screening efforts presented to the Advisory Committee had included:

- Outreach conducted to parents of unscreened 18-month-old children, utilizing data from RI's child integrated information systems, KIDSNET,
- Philosophy, impact and success of past summer screening efforts,
- Review of the Lead Screening Guidelines,
- Screening efforts in collaboration with the Managed Care Organizations,
- Quality improvement efforts initiated in pediatric practices linked to KIDSNET, to assess proportion of unscreened 19-35 month old children,
- Data sharing efforts to assess the proportion of children enrolled in Head Start without evidence of lead screening,
- The need to provide Head Starts with the tools to better assess screening compliance in their enrolled population through access to KIDSNET,
- The establishment of "free" lead clinics for the uninsured.

After the submission and ongoing implementation of the statewide screening plan, the RI CLPPP decided to continue to work with the Committee to keep the members informed about the progress of screening efforts. Early in 2002, the Lead Management Team, formed by the leadership of RI CLPPP, suggested and approved that the Advisory Committee's membership be expanded and structured in such a way that participants could provide feedback on matters beyond lead screening, including environmental efforts, case management, and outreach and education. Additional members were invited to join and the first meeting with the expanded group was held in July 2002. RI CLPPP went to the group to discuss the proposed framework and methodology for an evaluation of case management efforts. In subsequent meetings, the Program discussed with the Advisory Committee topics in the areas of outreach and education, environmental inspections, surveillance and more.

The Lead Hazard Mitigation Law was passed in June 2002, and preparation to implement the several complex components of the law began immediately. The vast majority of the members of the program's Advisory Committee were also participating actively in the implementation of the Lead Hazard Mitigation Law, and therefore the role of the Advisory Committee changed for a few months to allow its members to focus on the new law. From the fall of 2002 until mid-2003, Advisory Committee members as well as representatives from RI CLPPP were part of the Strategic Planning committees formed to implement the Lead Hazard Mitigation Law. The group convened several times each month, until the completion of the Strategic Plan in May 2003. In the summer of 2003, the RI CLPPP's Advisory Committee resumed its regular meetings to continue conversations

about the elimination plan, now with a framework facilitated by the Housing Resources Commission's Strategic Plan.

CDC required that states (or jurisdictions) define "elimination" using the best available data and through solid analysis of the state's infrastructure. With the demanding pressures for the design of an elimination plan, the Lead Management Team held several discussions about the most appropriate way to measure the elimination of childhood lead poisoning in Rhode Island. Results of such discussions were approved by the Director of the RI Department of Health, and finally in early 2003, the definition of elimination was presented to the Environmental Lead Interagency Coordinating Council ("ICC"), created by the Mitigation Act. After consultation with members of the ICC, the definition of the elimination of lead poisoning was included in the ICC report submitted to the Governor in March 2003 (see Appendix # 6). It is important to note, however, that the ICC agreed to submit this definition in the report under the condition that the definition needs to undergo further discussions by its members. As stated in the report, the Department of Health proposed to measure the elimination of childhood lead poisoning as follows:

> *"To decrease the proportion of new cases [incidence] of lead poisoning (defined as a blood lead level of 10 µg/dL or more) in children under six years of age to less than 5% in all RI communities without decreasing the availability of lead safe and affordable subsidized housing."*

This definition to eliminate lead poisoning was then included in the 2003 edition of the "Lead Poisoning in Rhode Island: The Numbers" book, and subsequently discussed at other forums for further input, including the Advisory Committee in its meeting in June 2003, as discussed later in this document.

B. Other Assessments.

Over the last few years, RI CLPPP has engaged in several efforts to discuss ways to define the elimination of lead poisoning and to formulate comprehensive strategies that could be used to achieve this goal. First, RI CLPPP's Management Team requested and reviewed results of data analysis conducted by the program's epidemiologist to arrive at a proposed definition. Several approaches were discussed and it was finally agreed that incidence rates were going to be used as a measure. The state's housing data was inadequate, making very difficult to pair lead surveillance with housing data for the definition. Nonetheless, the housing data published in a local newspaper was used to assess incidence rates in each of the cities and towns of the state. (See Appendix # 7.)

The RI CLPPP also held a retreat in December 2002 with the Program's management and staff to brainstorm about primary prevention strategies for the upcoming year. The summary of ideas from this retreat is attached in Appendix # 8. Planning for the 25th Anniversary of lead poisoning prevention efforts also began at that time.

In May 2003, given the 25th anniversary, RI CLPPP planned to close "Lead Poisoning Prevention Month" with a panel of experts at RI CLPPP's annual conference. The panel was composed of Dr. Herb Needleman, nationally recognized researcher; Dr. Bela Matyas, pioneer of the Environmental Lead component of the program in RI in the early nineties; Dr. Peter Simon, RI CLPPP's Medical Director and visionary from the beginnings of lead screening in the state; and Irwin Becker, former

journalist for the Providence Journal and a strong supporter of radical approaches to eliminate lead poisoning. The panel attracted over 100 representatives from a variety of entities, including advocates, community agencies, lead centers, lead clinics, the Medicaid agency, the Managed Care Organizations, physicians, local researchers, Head Start agencies, WIC, housing agencies, lead hazard reduction programs and other entities with an interest in lead poisoning prevention. The panelists recognized that it will take multiple, concurrent strategies and a tremendous amount of resources to eliminate lead poisoning. In addition, however, the panelists offered their innovative perspectives and came forward with a challenging set of ideas about how to eliminate lead poisoning. Given the importance of this discussion, RI CLPPP made an effort to capture all ideas from the panel discussion, which is included in both complete and summary format in Appendix # 9.

RI CLPPP promptly gathered the panelists' ideas and presented them to the Advisory Committee in June 2003. Since most of the Committee's representatives were present at the lead conference and had an opportunity to participate as well, there was rather little additional input on the list of ideas. The committee, however, unanimously agreed that the major component of the elimination of lead poisoning involves increasing the supply of lead safe affordable housing. The Committee concluded that the Department of Health's role is somewhat limited in this area as it is a health, not a housing, agency. However, the Committee strongly emphasized the need to advocate for progressive housing policy towards this end.

- The Lead Management Team continued to discuss policy issues around the Department of Health's role in light of the recent Lead Hazard Mitigation Law due to the Department's limited involvement in housing policy. Finally, a session involving the Divisions' Directors took place in January 2004, resulting in the decision to define the Department's role to eliminate lead poisoning in three main areas, as included in section VI this document. The group also recognized that the main challenges to achieve elimination include:
  - the lack of comprehensive housing data in one, accessible place;
  - the limited capacity of the Department of Health to directly deal with issues related to housing;
  - the significant lack of resources for implementation of the Lead Hazard Mitigation Law.

C. Lead Hazard Mitigation Law Planning.

1. Strategic Planning Process.

The Lead Hazard Mitigation Act required the creation of a comprehensive strategic plan to map its implementation. Over the course of nine months, multiple partners from the arenas of health and housing met regularly to share ideas and gradually lay down plan elements and objectives for implementation (see Appendix # 10). Three separate subcommittees were formed: Strategic Planning, Mitigation Regulations, and Education. The Housing Resources Commission brought in a consultant, the National Center for Healthy Housing, to compile ideas and strategies suggested by partners into the Comprehensive Strategic Plan that was made public in May of 2003. This process of collaboration is well documented in the plan, included in Appendix # 10. This goal-oriented and idea-sharing exercise served to improve interagency understanding and coordination, and is showing to have lasting impact.

2. Environmental Lead Interagency Council.

As mandated by the Law, and effective January 2003, the Environmental Lead Interagency Coordinating Council was formed and consists of six members. The Director of the RI Department of Health chairs the Council and membership includes the directors or representatives from the Housing Resources Commission, the Department of Environmental Management, the Department of Human Services, the Department of the Attorney General, and the RI League of Cities and Towns. A representative of the Department of Business Regulations is also regularly invited to the Interagency Council.

As required by the law, the purpose of the ICC is to coordinate the activities of its member agencies with respect to:

a) environmental lead policy,
b) the development of educational materials,
c) drafting regulations which have as their purpose reducing preventing lead poisoning; and
d) enforcement of laws, regulations and ordinances pertaining to lead poisoning and lead poisoning prevention.

Additionally, the ICC is required to prepare a report to the Governor every year on the progress of implementation of the comprehensive strategic plan and any needed changes in legislation.

At least two of the representatives from the Lead Management Team regularly attend the ICC meetings and have the opportunity to suggest agenda items, brief the ICC members on implementation barriers, progress and needed support for policy.

VI. RI CLPPP ELIMINATION PLAN

Major initiative and resources will be needed on the part of multiple health and housing agencies to meet our goal of eliminating childhood lead poisoning in Rhode Island by 2010. Through various extensive strategic planning efforts at the RI CLPP Program level, interagency statewide level and novel ideas from national experts, RI CLPPP has been able to compile a preliminary list of main objectives for the elimination plan.

Another key portion of the RI CLPPP Elimination Plan arose from a constructive discussion with the RI Lead Advisory Committee. At a meeting in June of 2004, the Advisory Committee developed comprehensive primary prevention strategies that they would like to see incorporated into the statewide elimination effort. A more detailed explanation of these strategies can be found in the following pages.

Additionally, RI CLPPP recently collaborated with the Program Managers from all of the Lead Hazard Reduction Programs in the state and the Housing Resources Commission to develop a number of strategies to provide outreach to property owners and enroll low-income owners into the Reduction Programs. The content of the input from the group is being included in the proposal that the Housing Resources Commission is submitting for the HUD Lead Outreach Grant application. Many of these ideas have been incorporated into the elimination plan as well.

Because of the broad scope of the Lead Hazard Mitigation Law, a major component of the Elimination Plan in Rhode Island will be carrying out the recommendations of the Strategic Plan (see Appendix # 10). We are fortunate to have already gone through an extensive strategic planning process in 2002-2003, which served to improve interagency communication and lay the groundwork for the implementation of this significant legal mandate.

The three main objectives of the Plan are listed on the following page. Additional information to further illustrate these objectives can be found in the appendices.

Elimination Plan Objectives

1. **Support implementation of the Lead Hazard Mitigation Law[1].**
Work with the Lead Interagency Coordinating Council to:

A. Support implementation of the Comprehensive Strategic Plan (see Appendix # 10), including carrying out the main responsibilities of the Department of Health as outlined in the Plan:

- Continue to collaborate with the Housing Resources Commission and critical partners on a series of public service announcements to inform the public of their rights and responsibilities under the Lead Hazard Mitigation Law.
- Maintain capacity to meet consumer demand for the 8-hour lead-safe renovator/remodeler course, and continue to encourage property-owners to take the 8-hour course and perform mitigation work themselves.
- Continue to encourage OB/GYN providers and maternity hospitals to provide lead poisoning prevention information early on in pregnancy and soon after birth.
- Continue to distribute information to tenants in Rhode Island on preventive measures they can take to protect their families.
- Increase the supply of certified technicians and contractors.
- Maintain and update the public registry of "high-risk" properties, located at http://lead.health.ri.gov/.
- Work with Code Inspection agencies to match addresses that have code violations with addresses where a child with an elevated blood lead level resides.
- Work with HRC to develop a strategy to respond to tenant complaints.
- Use full capacity of the Department to enforce current lead regulations.
- Notify occupants of the units where a significantly lead poisoned child resided but moved prior to the time of inspection of the potential for lead hazards in those units.
- Develop consistent eligibility requirements for services for non-significantly lead poisoned children and families, including case management and environmental inspections.
- Collaborate with the Department of Business Regulation and Housing Resources Commission to correlate insurance-related implementation statistics with other implementation data to track the overall success of the statute.
- Provide and maintain a database with up-to-date data regarding lead poisoning investigations in order for insurance companies to calculate accurate rates for lead liability coverage.
- Work with the Housing Resources Commission to establish an electronic reporting requirement for licensed lead inspectors and inspector technicians, and post on the web, data related to

[1] The activities included here are those that are the responsibility of the RI Department of Health under the Strategic Plan, published in May 2003 by the Housing Resources Commission, as a result of statewide discussions and planning.

Certificates of Conformance and Certificates of Presumptive Compliance.

B. Advocate for increased and continued resources for implementation.

2. Formulate innovative Primary Prevention strategies to achieve elimination.

A. Data Quality and Access.

- Implement a survey of laboratory technicians and patients to identify factors that hinder the collection of race and ethnicity data; use the information collected to develop an education strategy to assist laboratories in improving data collection methods.

- Collaborate with the National Center for Healthy Housing for a HUD LEAP grant in order to obtain funding for a leadsafehomes.info website using blood lead and environmental data for the State of Rhode Island. The creation of this site will allow Rhode Island to view lead data in conjunction with GIS mapping and will allow the public, policy makers, and community organizations to understand what properties and neighborhoods are suffering most from lead hazards. See project description in Appendix #11.

B. Education

- Make improved connections with the school committees and Local Education Authorities ("LEAs") to involve them in an effort to educate parents and students about the dangers of lead poisoning.

- Target future at-risk parents in high school health education classes with focus on high schools in the core cities with low-income, high-risk teens and work with health education providers to incorporate lead poisoning prevention as one or a series of lessons.

- Work with the laboratories drawing stations to provide educational materials at the time of the blood draw for a lead test so as to reach families with children who may have a blood lead level <10 µg/dL.

- Work with providers of 1st time homebuyer classes to incorporate lead poisoning prevention education and lead-safe work practices.

- Work with the Housing Resources Commission to identify ways to offer the Lead Hazard Mitigation Course as a continuing education credit to Lawyers, particularly those who deal with environmental and housing issues so as to raise their knowledge of lead and housing issues.

- Identify ways to partner with large home improvement stores that offer classes on renovation and remodeling to incorporate information about the dangers and prevention of lead poisoning and importance of lead-safe work practices.

- Work with EPA to assess the possibility of updating, re-designing and making more user friendly the "How to protect your family" brochure.

- Work with the Housing Resources Commission using a variety of media to promote general awareness of lead hazard reduction resources available to property owners in the state.

C. Outreach to Property Owners

Shift the focus of improving properties from a penalty approach to a reward approach, by focusing on outreach to property owners that provides awareness and general education, and provides rewards for compliance. Activities include, but are not limited to:

- Work with insurance companies, banks and lenders, and possibly tax officials to push the financial benefit of complying with the law. Work with lending organizations to offer benefits to property owners who have taken the Mitigation Course or have Certificates of Conformance, given that property owners in compliance will be less likely to have major issues on their properties that will cause difficulty with the lending organization.

- Collaborate with the Housing Resources Commission to provide Lead Hazard Mitigation and Lead Hazard Reduction materials and resources in languages other than English and Spanish in order to target many of the smaller property owners (owners of 1,2, or 3 units) in the state. Languages could include, but are not limited to, Portuguese, Cambodian, and Laotian.

- Work with the Housing Resources Commission to incorporate an evaluation into the 3-hour training class offered to the property owners as a requirement to comply with the Lead Hazard Mitigation Law. The evaluation could provide feedback on what property owners were interested in and what they felt could be improved so as to involve their viewpoint in the process.

D. HUD lead Outreach Funding

Support the activities outlined in the Housing Resources Commission's application for HUD Lead Outreach funding if funding is granted. This includes, but is not limited to, support of the following activities:

- Streamlined Application Process – Assist the Coordinator to be hired by the Housing Resources Commission if HUD funding for Lead Outreach is granted. The feasibility of a standardized application, or standardized first part, that anyone can use for the Reduction programs will be investigated. An effort will be made to make this available online, and to promote the website in the media campaign.

- Outreach to Contractors –Provide outreach to private contractors highlighting the incentive of steady work and pay by working with the Reduction Programs.

E. Lead Hazard Reduction Programs

Work with the Lead Hazard Reduction Programs and the Housing Resources Commission to formulate strategies to increase the enrollment of low-income property owners in the Lead Hazard Reduction Programs. Activities will include, but are not limited to:

- Media Campaign- DOH, HRC, and the Governor's Office will continue to collaborate on a media campaign. The Mitigation Law will be used as leverage to enroll property owners in the Lead Hazard Reduction Programs, and the campaign will provide links to a web site for information and an 800 number for a clearinghouse of information about the reduction. The campaign will be statewide, and will potentially include TV, radio, Spanish radio, and newspaper.

- Development of common packets and materials –To synthesize the amount and type of information that is being distributed to property owners and tenants into one useful

educational packet.

- Mailings to families of children with BLL's between 10 and 14 µg/dL - The DOH will work with the Lead Hazard Reduction Programs to include information on the resources and programs to all families with a child with an elevated BLL between 10 and 14 µg /dL. One flyer or promotional material will be developed to include information on all lead hazard reduction programs in the state.

- Private Inspection Reports - Work with the Lead Hazard Reduction Programs and other interested parties to provide the contact information of property owners who had private inspections conducted on their property and had lead hazards (where there are no poisoned children). The program's interest in this information will work to outreach to these property owners to enroll them in the program.

F. Other innovative strategies

- Keep Your Baby Lead Safe: DOH and the Reduction Programs will work closely to enroll pregnant women or new moms into both the Keep Your Baby Lead Safe (KYBLS) and the Reduction programs. DOH will provide each program with information and referral sheets to provide to any homeowners who have pregnant or new moms living on the property. DOH will also provide all women in the KYBLS program with resources and referrals to the Reduction Programs.

- Lead Hazard Disclosure Law: Work with the Alliance for Healthy Homes on a HUD grant to obtain funding for the use of the Disclosure Law as a leveraging tool. Include education about the federal lead hazard disclosure Law in the 3 hour Mitigation Course, as well as provide clearer information to property owners in multiple languages.

- Formulate innovative primary prevention efforts, such as the use of SEP (Supplemental Environmental Project) from EPA to fund window replacement/repair in foster homes and day cares serving children under the age of six.

3. Maintain and re-evaluate Secondary Prevention efforts[2].

Continue to support and improve efficiency of screening, surveillance, case management and environmental efforts for the significantly lead poisoned children, as presented in the CDC work plan. This includes, but is not limited to:

A. Monitoring and reporting progress of the Statewide Screening Plan.

- Continue to monitor lead screening rates in RI, by assessing the proportion of 18-month-old children screened once, and the proportion of 36 month old children screened twice, each test at least 12 months apart.
- Continue to assess and meet the needs of the uninsured and underinsured children by continuing to support the free community hospital-based clinics that offer lead screening in a culturally sensitive, non-threatening environment.

- Continue monitoring the lead status of children in the WIC sites with access to the Department of Health's database, KIDSNET.

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[2] This section includes only a highlight of the activities the Program will perform in Secondary Prevention. A complete list of the secondary prevention activities can be found in the Cooperative Agreement prepared as a funding requirement for the Centers for Disease Control and Prevention.

- Continue working with Managed Care Organizations to perform data sharing initiatives to identify unscreened children enrolled in MCO's, provide primary care providers with lists of unscreened children, and assess screening barriers.

- Continue to conduct Quality Assurance activities at pediatric practices to further inform physicians about screening performance in their practice and provide technical assistance.

B. Ensuring adequate and comprehensive surveillance systems

- Formulate and implement a plan to ensure and maintain data quality, integrity and completeness of the "Lead Elimination Surveillance System" ("LESS").

- Maintain laboratory capacity to perform environmental lead testing and blood lead testing as a crucial assessment function. Maintain capacity in the blood lead laboratory for analyzing up to 40,000 specimens per year during state FY 2005.

C. Ensuring quality case management services for all significantly lead poisoned children.

- Ensure access to quality case management services for all children with significant lead poisoning.

- Continue to provide prompt comprehensive lead hazard inspections of the dwellings of children with significantly elevated blood lead levels.

- Ensure that the private inspectors under contract with HEALTH perform quality environmental lead inspections.

- Develop and begin implementation of a comprehensive evaluation of environmental inspection and enforcement services including a detail case flow and analysis of potentially deterministic factors.

- Identify strategies to increase the number of families of lead poisoned children accepting inspections in order to make more potentially high-risk homes lead safe.

D. Evaluating program's outcomes.

- Formally measure lead exposure, poisoning, and adequate follow-up care through the use of key indicators.

- Develop additional indicators of program performance.

- Implement detailed evaluation of specific component areas of the program.

- Utilize informal evaluation measures and utilization of academic research for evaluation purposes.

VII. EVALUATION OF THE PLAN

The evaluation measure for the elimination plan is primarily the number of communities with an incidence of lead poisoning (BLL>=10µg/dL) of <5% among children under the age of six, In order to reach elimination, we must work on the three main objectives outlined in the elimination plan. In order to measure our progress toward elimination, we have developed an evaluation measure for each of the three main objectives, as well several measures to evaluate the smaller activities necessary within each objective.

1. **Objective: Support implementation of the Lead Hazard Mitigation Law**
    - **Evaluation Factor:** Number of pre-1978 rental units that have a current Certificate of Conformance
        i. Number of trained lead inspectors and inspector technicians available to conduct clearance inspections
        ii. Number of lead abatement contractors available to do renovation and lead hazard reduction projects
        iii. Number of property owners attending the three-hour Lead Hazard Awareness Class
        iv. Number of cases referred by the Department of Health to the Attorney General and Housing Court quarterly
        v. Number of inspections offered to occupants of a former residence of a lead poisoned child

2. **Objective: Formulate innovative Primary Prevention strategies to achieve elimination**
    - **Evaluation Factor:** Number of children under the age of three who have never had a blood lead level >=10 µg /dL
        i. Number of high schools incorporating lead poisoning prevention into their health education curriculum
        ii. Number of laboratories distributing brochures about lead poisoning to the parents of children getting a lead test
        iii. Number of pregnant women and new moms enrolled in Keep Your Baby Lead Safe (KYBLS) and the Lead Hazard Reduction Programs
        iv. Number of KYBLS babies with no blood lead level >=10µg/dL by 18 months of age

3. **Objective: Maintain and re-evaluate Secondary Prevention efforts**
    a. **Evaluation Factor:** Number of children screened at least once by 18 months of age, and at least twice by 36 months of age
        i. Number of pediatric practices using KIDSNET to monitor and improve lead screening among their patients
        ii. Number of children screened as a result of the data-sharing initiative with the Managed Care Organizations
        iii. Number of children screened four months after contacting their pediatrician via an outreach letter

VIII. APPENDICES

1. Best Practice Initiative, "Improved Childhood Blood Lead Screening in Rhode Island" - U.S. Department of Health and Human Services
2. Memorandum of Understanding between the RI CLPPP and lead centers
3. Case Management Evaluation Report and Results of the Evaluation
4. Description of the "Keep Your Baby Lead Safe" program
5. Comparisons between a Certificate of Conformance and a Lead-Safe Certificate
6. Environmental Lead Interagency Council report to the Governor, 2003
7. Housing and incidence data
8. Summary of ideas from December 2001 RI CLPPP's retreat
9. Summary of panel discussions (Dr. Needleman, Dr. Matyas, Dr. Simon and I. Becker)
10. Housing Resources Commission's Strategic Plan, May 2003
11. LeadSafeHomes.info Project Description - New Website Tool to Combat Childhood Lead Poisoning

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